

1 **SEU AND SEFI FAULT TOLERANT COMPUTER**

2

3 **ABSTRACT OF THE DISCLOSURE**

4

5 A non-hardened processor is made fault tolerant to SEUs and SEFIs. A
6 processor is provided utilizing time redundancy to detect and respond to SEUs.
7 Comparison circuitry is provided in a radiation hardened module to provide
8 special redundancy with the need to run additional processors. Additionally, a
9 hardened SEFI circuit is provided to periodically send a signal to the process
10 which, in the case of a processor not in the SEFI state, initiates production by the
11 processor of a "correct" response. If the correct response is not received within a
12 particular time window, the SEFI circuit initiates progressively severe actions until
13 a reset is achieved.